

Script: Pre-recorded Event

Event Code:	9PH0-23P1
Event Title:	Pearson Edexcel A Level Physics: New to Edexcel

Slide No.	Script (verbatim)
Slide 1	<p>Welcome to Pearson A Level Physics: New to Edexcel online training event.</p> <p>This online event is designed for teachers are moving to Pearson Edexcel or delivering the Pearson Edexcel specification for the first time. This will support you in getting ready to teach the A level Physics specification.</p> <p>Please note that this session in based on the home specification 8PH0/9PH0 first teaching from Sept 2015 NOT the International A-level XPH11/YPH11 first teaching from Sept 2018.</p>
Slide 2	<p>This training session has been split into 4 sections. In each section you will be invited to pause the recording and engage with activities that will allow you to explore the course. The times indicated here are suggestions, however you may take as long or as little as you need. This session is intended to last 2 hours.</p>
Slide 3	<p>During this session we will look at the structure and content of A level Physics, explore possible teaching and delivery strategies, and review assessment, question papers and mark schemes. In each section we will look at the support available to you, but we will suggest further support that is available at the end of the session.</p>

Slide 4	<p>Now is a good time to pause the recording and download the course materials from the resources window. Note that these will open in a new tab in your browser. Please restart the recording when you are ready.</p> <p>PAUSE</p>
Slide 5	<p>Part 1: Specification content and delivery</p> <p>This session is designed to take 30 minutes.</p>
Slide 6	<p>In this session we will be looking at the specification content and topics, including different ways of navigating your way through the course. We will also consider factors that may affect your planning of the curriculum, and the free resources available to you to support your planning.</p>
Slide 7	<p>Before we begin to look at the specification it is worth mentioning the role of AS level. AS level is a stand-alone qualification, therefore the exam papers are separate to the full A level.</p> <p>The decision to offer AS level Physics will depend heavily on the centre's circumstances. For example, whether funding allows AS Physics to be included owing to smaller numbers of students, to offer AS as a vehicle to retain students into year 12, or whether the centre offers other AS levels that are more popular. Also, some centres also choose to use AS as a benchmark for student progression or as a fall back if students do not progress well through the full A level.</p> <p>The good news is that the AS specification is designed to be completely co-teachable with A level so there is no need for a separate class of students.</p>



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	We will be looking at the specification as a whole in the following slides.
Slide 8	<p>Here is an overview of the specification topics split into AS and A level, and by paper. For example, AS level consists of 4 topics, 2 in each paper. Paper 1 for the full A level consists of AS topics 2 and 3, and A level topics 6, 7 and 8.</p> <p>The numbers in the columns refer to the specification; the first number is the number of specification points and the second is the number of core practicals in that topic. So Topic 2 Mechanics has 21 specification points and 2 core practicals. These are summed for each paper.</p> <p>You should note the following:</p> <ul style="list-style-type: none">• Topic 1 Working as a Physicist underpins all topics so appears in all exams• The AS Paper 1 looks slightly smaller but there is a great deal of physics in these two topics which are right at the heart of the subject.• There is slightly more content in the 2nd year, and practicals will be more significant, however students tend to move more quickly in the 2nd year. <p>So in conclusion, all four quarters of the specification are about balanced in size, as are the two terminal topic papers</p>
Slide 9	<p>Here we are looking at part of a topic in more detail. This is a concept-led approach which begins with a study of the laws, theories and models of physics, then explores their practical applications. You can see the topic is split into specification points which run sequentially. It</p>



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	<p>is important to note here that the core practicals are in bold and have their own specification point, therefore they are examined directly.</p>
Slide 10	<p>An alternative way of delivering the course is using the context-led approach, known as Salters-Horners or SHAP. This begins with the consideration of applications that draw on one or more areas of physics, and moves on to the underlying laws, theories and models of physics.</p> <p>As the exam is the same, this could be used as a mix and match approach, for example, you may teach part of the specification context-led and part concept-led.</p> <p>This style is also motivating as it is based on real world applications, which may suit some students. There are plenty of resources available to support the teaching of this approach. Let's look at part of one of these topics in more detail.</p>
Slide 11	<p>This is part of the Good Enough to Eat topic which is a case study of the production of sweets and biscuits. You will recognise some of the Materials specification points covered from the previous slide.</p> <p>However there are some specification points, 71 and 72, that refer to optics, therefore this is a mix of Topics 2 Materials and 5 Waves.</p> <p>The following slides show the topics for both the content and context-led approach.</p>
Slide 12	<p>Here we can see the topics for the two approaches at AS level. There are more topics in the SHAP approach, but they are shorter which may be more useful for some students.</p> <p>Note that Working as a Physicist is common to both approaches. Also, Higher, Faster, Stronger has the same specification points as Topic 2</p>

	Mechanics. The other SHAP topics are a mixture of Topics 2 to 5 and are split between papers.
Slide 13	Here we can see the topics for the two approaches at A level. Note that SHAP has fewer topics but the split between papers is much clearer.
Slide 14	<p>This slide shows the specification points mapped out for each approach. This is given in your Delegate Booklet and can be used to aid your planning.</p> <p>The question of whether to use SHAP rests with what would suit the students. You could argue that initially it is more motivating by using a clear context but there is a danger of narrowing the students in terms of application to other contexts. The contexts used may not be on the exam therefore you would have to plan to use more contexts within your teaching.</p>
Slide 15	<p>Now is your opportunity to look at the specification for yourself and consider which approach would be most appropriate in your setting. Open up the Delegate Booklet and document W01 A Level Physics Specification Issue 3. You will need to follow Activity 1 Task 1 for about 5 minutes. Task 2 is a follow up activity if you wish to use it.</p> <p>Note that there is a separate AS level specification available on the Pearson qualifications website if you are only interested in AS.</p> <p>Please pause the recording and restart when you are ready.</p> <p>PAUSE</p>
Slide 16	We will now consider planning how to deliver the course.



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There is no “correct” way to deliver the course – each centre will have its own way of ensuring that the content of the course is covered, and students are supported in their learning. In addition topics can be taught in any order. This slide shows some of the issues you may face when planning delivery.

Firstly, having a clear intent for the curriculum is an important consideration for new OFSTED framework, i.e. you have to justify why teach in the order that you do.

The important thing is to plan progression for your own students not just follow a textbook or ready-made scheme of work. For example, you may need to consider the progression of maths skills to support students not taking A-level maths, therefore starting with Topic 1 may not be a good starting point.

Engagement and enjoyment may also be important as this will help to motivate and retain students, so you may use SHAP or start with the Waves topic as it is more visual.

But there may be other practical issues. If there are two teachers, how do you split the teaching? Do you separate topics or follow on? If you have mixed classes of AS and A level students, when do you move off AS topics to allow adequate revision time? How many teaching hours will also affect planning delivery, for example, you may have different allocated hours in year 12 and 13.

Finally, students may find the leap from GCSE to A level challenging, so how might it be best to support these students?

The Getting Started Guide available on the Pearson qualifications website gives very good coverage of these issues.



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Slide 17	<p>Several resources have been written to help you with your planning.</p> <p>The course planner is a high-level overview, showing how the teaching content for A level Physics can be split up over 60 weeks.</p> <p>The course planner gives guidance to the number of teaching weeks that should be spent on each of the 16 topics in the specification, as well as a possible teaching order. This is an editable Word file so that you can adapt and amend it for your specific circumstances.</p> <p>The scheme of work is based on the course planner and adds more detail, on a week-by-week basis, to the course planner, therefore helping you to plan each of your lessons effectively.</p> <p>If you are converting from the AQA or OCR specifications there are mapping documents to help you convert your current Schemes of Work to match the Edexcel specification.</p> <p>In addition, there is a Waves Topic Guide which is intended to support teachers unfamiliar with the specification in teaching new areas of this topic.</p> <p>All of these have been provided in the course materials, but these and much more are available on the A level Physics subject website. The link is also available in the Delegate Booklet.</p>
Slide 18	<p>Finally, to support transition from GCSE there is a Transition Guide which builds on some topics from GCSE. There are 5 starter lessons</p>



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	<p>beginning with a baseline assessment. They include teaching ideas, practice questions and mathematical activities. You can use these in a number of ways, including in sixth form induction weeks, as summer homework in preparation for the sixth form or at the beginning of the relevant topic to establish prior knowledge.</p> <p>Also available on the website are other documents to support transition, including mapping from GCSE and transition papers using questions from Higher Tier GCSE papers.</p>
Slide 19	<p>Now it's time for you to spend about 5 minutes looking through the planning resources. Please refer to Activity 2 in the Delegate Booklet.</p> <p>Please pause the recording and restart when you are ready.</p> <p>PAUSE</p>
Slide 20	<p>Part 2: Assessment</p> <p>This session is designed to take 30 minutes.</p>
Slide 21	<p>During this session we will be looking at how AS and A level Physics is assessed. We will consider the assessment of maths and practical skills and the resources available to support your students. We will also look at exam questions, in particular the types of questions and the command words used. We will also look at example questions with their markschemes. Finally, what free support is available for you to use.</p>
Slide 22	<p>Here is an overview of how AS and A level is assessed. For both qualifications the exams are at the end of the course. Remember that AS level is a standalone qualification, so the 2 AS exams do not contribute to the A level grade. The full A level has 3 exams and the</p>



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	Practical Endorsement component, although this is graded separately and does not affect the A level grade.
Slide 23	AS level must have 3 hours of assessment, which is common to all exam boards. This is split equally between the two papers. Paper 1 and paper 2 examine different topics but each has a synoptic element which includes a practical element. Remember that, although there is no Practical Endorsement at AS level, the core practicals are still part of the specification so will be examined.
Slide 24	<p>A level must have at least 6 hours of assessment. Again, this is common to all exam boards but the ratio between papers may vary.</p> <p>Papers 1 and 2 contain different topics including AS topics. The core practicals can be examined but questions focus on the physics behind the practical rather than the apparatus and techniques. These papers contain a mixture of question styles – 8 multiple choice followed by short and long answer questions. Each paper will contain an extended open response question.</p> <p>Paper 3 is much longer and draws on all aspects of the course. Half the questions are based on practical skills, whilst the other half are synoptic style questions. This paper is more likely to have longer responses. For those transferring from AQA, this paper would contain the option module, e.g. Astronomy.</p>
Slide 25	<p>As with all A level sciences there are 3 assessment objectives. These are often overlooked but govern how papers are designed.</p> <p>AO1 focuses on the student's knowledge and understanding of scientific ideas, processes, techniques, and procedures. Typically, this</p>



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	<p>would be demonstrated in a response by students recalling information. This makes up 31 to 33% of assessment.</p> <p>AO2 focuses on applying this knowledge and understanding in a variety of ways. This is a further 41 to 43% of the assessment.</p> <p>The final 25 to 27% is AO3. Here students need to analyse, interpret and evaluate scientific information, ideas and evidence. This is evident where students have to use information to form a conclusion or evaluate a practical design or procedure.</p> <p>The table at the bottom shows how these are split between the 3 papers. Note that papers 1 and 2 are weighted more towards AO1 and AO2. Paper 3 has less AO1 and more AO2 and AO3 compared to papers 1 and 2, which reflects the practical and synoptic elements of this paper.</p>
Slide 26	<p>Maths skills are vital to being a physicist, and these are assessed within the exam papers. At least 40% of the total marks assess maths skills, although this may vary slightly for each paper.</p> <p>It is expected that students have a level of maths equivalent to GCSE Higher tier maths, so taking A level maths is not a requisite for the course.</p> <p>The specification states the maths skills that will be assessed, which can be found in Appendix 6. The maths topics are shown on the slide, but it should be noted that the skills in bold are not tested in the AS level exams as they usually relate to those topic areas studied in year 13.</p> <p>There is support available for students, which has been included as part of the pack. W07 is the student guide which is freely available to download on the website. There is an equivalent teacher guide on the</p>

	<p>website which contains the answers, however this is locked and can only be accessed with your Pearson Edexcel login.</p>
Slide 27	<p>Practical skills are also a crucial aspect of the course. 15% of the total marks assesses practical skills but these are only found in paper 3. Remember that the core practicals have their own specification point so can appear in the relevant paper 1 or 2.</p> <p>The skills tested are listed in Appendix 5a and the slide shows a list of these skills. Note that these focus on planning and analysis, as the “doing” part of practical skills are assessed under the Practical Endorsement, or CPAC.</p> <p>The use of uncertainties is outlined in Appendix 10 of the specification, alongside a glossary of terminology. Remember that the level of maths required is GCSE Higher tier, therefore more advanced statistical analysis is not required.</p> <p>As with maths skills, there is free support available on the website in the form of a student guide, included as W08 in the resources. Similarly there is a locked teacher guide. Also, there’s a wealth of International A level papers which you can use. The equivalent AS unit is WPH13 and the equivalent A level unit is WPH16. Both units provide questions that test these skill areas, and these are aligned to this specification. Note that if you use the old units, WPH03 and WPH06, there will be differences in the terminology used.</p>
Slide 28	<p>Now it’s time for you to spend about 5 minutes looking through the maths and practical skills resources. Please refer to Activity 3 in the Delegate Booklet.</p> <p>Please pause the recording and restart when you are ready.</p>



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Slide 29	<p>We'll now go on to look at exam papers in more detail. Exam papers are designed so that the style of the questions increase in demand through the paper. There are 3 main types of question.</p> <p>Multiple choice questions are found at the beginning of the paper. Each question has four possible responses with only one answer being correct. These test one aspect, such as a definition, rearrangement of a formula, correct substitution into a formula etc.</p> <p>Short answer questions often cover simple or single step calculations, short descriptions or explanations, or simple derivations. These are usually 2 or 3 marks.</p> <p>Finally long answer questions which are usually aimed at higher grades. These can include less structured calculations and more involved explanations, worth between 4 and 6 marks. We will be looking at an example of a longer calculation later.</p> <p>The extended open response question, which can be identified with an asterisk next to the question number is always worth 6 marks. 4 marks are available for the knowledge of physics, or indicative content, and 2 further marks for the line of reasoning, or linkage marks. We will be looking at an example of this later.</p>
Slide 30	<p>Questions are designed to begin with stimulus material which set the context and provide information to answer the questions. For short and long answer questions, the question is in the form of a command beginning with a command word, for example, describe or explain.</p> <p>There are 26 possible command words, each with their own specific meaning. These are outlined in Appendix 7 of the specification. It is worth students getting to know what these mean as they can often not</p>



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	<p>obtain marks by doing the wrong thing. For example, students either fail to explain and just describe, or they waste time by explaining where a simple description was asked for. As a general rule, there is one mark for every bit of correct physics that answers the question.</p> <p>This specification introduced a number of new command words that prompts the student to form a conclusion, such as assess, evaluate etc. Note that if a question asks the student to make a choice, for example with the words whether or which, then this also indicates a conclusion is needed. We will look at an example of a determine whether shortly.</p> <p>Also note that students may need to derive a formula. Some of these are stated as specification points, but may also be more synoptic.</p>
Slide 31	<p>Here is an example calculation question from Paper 2 June 2018. Please pause the recording so you can read through it and restart when you are ready.</p> <p>PAUSE</p> <p>Note that this starts with the context and information needed to answer the question, before going onto part (a) which tells the student what to do. Here, there is a suggestion made and the student needs to determine whether it is correct. The use of “determine” indicates that a calculation is needed, and the addition of “whether” indicates that a conclusion must be stated, i.e. whether the suggestion is correct or not.</p> <p>Note that there are 4 marks available so there are 4 marking points on the mark scheme below.</p> <p>The first two marks are “use of” marks. This means that the values given must be substituted into the correct place in the formula. These</p>



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	<p>marks would be available if the student has made a power of ten error, e.g. had not converted km to m, or if they had failed to add on the radius of the planet to the height. A common error here is failing to square the radius, which does not get the use of mark.</p> <p>The third marking point is for the answer of the time period, which would have to be based on a calculation written down as it is given in the question. There were obviously different ways of solving this problem, so values for expected force, angular velocity and height of orbit are also given.</p> <p>Finally, the fourth marking point is for the conclusion, where the student must compare their calculated value with the value in the suggestion, as well as state whether the suggestion is correct. In this example, the final mark can be awarded if the student has not calculated their value correctly but has the correct conclusion based on that value.</p> <p>Note that the example calculation is just that, an example. It is not a model answer. Usually these follow the steps in the mark scheme, however students are credited for doing an “all-in-one” calculation.</p>
Slide 32	<p>Now it’s your chance to mark two examples of actual student responses to this question. Please refer to Activity 4 in the Delegate Booklet, where the question and mark scheme have been reproduced. It’s recommended to spend about 5 minutes on this activity.</p> <p>Please pause the recording and restart when you are ready.</p> <p>PAUSE</p>
Slide 33	<p>Here is example 1, along with the comments made by the Principal Examiner in the Examiner’s Report. Here, the student has used an “all-in-one” method by combining the formulae. This is acceptable, but</p>



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	<p>the formulae have to be combined correctly to score the “use of” marks.</p> <p>We can see here that the answer for T is clearly incorrect, so we do not award marking point 3. Also there is no direct comparison to 12 hours here, so cannot be awarded marking point 4. Had they done so they could have been awarded the mark. So there is only the option of awarding the “use of” marks. If we look at the calculation we can see that they have made the mistake of not adding the radius of the planet to the height, but everything is in the right place, so we can award marking points 1 and 2, so this scores 2 marks.</p>
Slide 34	<p>Example 2 is another “all-in-one” calculation, but we can see here that they have added the radius of the planet, leading to a correct answer of 12 hours. There is a mathematical comparison here, which is fine, with a final statement, so this scores all 4 marks.</p>
Slide 35	<p>Here is an example of an extended open response question, indicated by the asterisk, from Paper 3 June 2018. This type of question is not scaffolded and all the information comes at the beginning. Please pause the recording so you can read through it and restart when you are ready.</p> <p>PAUSE</p>
Slide 36	<p>The mark schemes for these questions follow a similar format. 4 marks are awarded for physics, or indicative content, which answers the question. Note that there are some phrases in brackets and some are underlined. Phrases in brackets are those we would like to see as this is a fuller answer, but the mark can be awarded if these are omitted, provided there is no contradiction. Phrases that are underlined must be seen in the correct context. Generally, this marks</p>



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	<p>are awarded first, so a student can gain 3 marks if there are 4 or 5 of these points present in their answer. At this point, we are just looking for these to be present in the answer.</p> <p>The linkage marks are awarded based on the number of IC points. Note these are a maximum so it is possible to get no linkage marks even if all 6 IC points are there, although this is quite rare. In general, the maximum is awarded if the answer flows from one point to the next and is easy to follow. Students only start to “lose” these marks if their explanations are muddled or they make contradictions.</p> <p>Finally note that there is additional information on how to apply the mark scheme.</p>
Slide 37	<p>Now it’s your chance to mark two examples of actual student responses to this question. Please refer to Activity 5 in the Delegate Booklet, where the question and mark scheme have been reproduced. It’s recommended to spend about 10 minutes on this activity.</p> <p>Please pause the recording and restart when you are ready.</p> <p>PAUSE</p>
Slide 38	<p>Here is example 3 with the comments from the Examiners Report.</p> <p>As we read though it we can see IC2 on line 2. On line 3, there is IC3 and 4. IC5 is spread over lines 3 and 4. There is no mention of magnetic flux or the force being attractive. So 4 IC points gives 3 marks. If we look at the linkage marks available, 4 IC points gives a maximum of 1 mark, however this one was judged not to flow logically, so not linkage marks are awarded, making this worth 3 marks.</p>



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Slide 39	<p>Example 4 is an example of a student gaining all 6 marks. All the IC points are there and are laid out as in the mark scheme, therefore this was also awarded the maximum linkage marks.</p> <p>It is interesting to note that this student used bullet points to help structure their answer. This is acceptable, provided they read as though they are not actually there. But use these with caution as linkage marks could be lost.</p>
Slide 40	<p>Here is a list of some of the free support available on the website. Note that the website is updated regularly as new material is added, so it is worth checking on a regular basis.</p> <p>The sample assessment materials have an erratum notice.</p> <p>Examiners reports are a valuable source of information about what is expected and common misconceptions.</p> <p>The mock paper is similar in format to Paper 1 and 2 and contains a mixture of topics. Note these are padlocked and require an Edexcel login.</p> <p>examWizard allows you to create your own tests online using free past paper questions.</p> <p>ResultsPlus allows you to compare your student performance with the entire cohort, so it is useful to see where there are issues to inform your planning and teaching.</p> <p>Finally, Access to Scripts is free but requires the students permission and the deadline is in December. Often centres will obtain permission from the student, for example by signing a consent form, whilst they are sitting their exams to avoid trying to obtain it once they leave.</p>



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Slide 41	<p>Part 3: Practical work</p> <p>This session is designed to take 20 minutes.</p>
Slide 42	<p>In this session we will be looking at:</p> <ul style="list-style-type: none">• the Core Practicals and their purpose• support through worksheets/practical guides• tracking CPAC using the tracking spreadsheet
Slide 43	<p>Practical skills are assessed in two ways. Firstly, through the written examinations as discussed earlier. Secondly through the Practical Endorsement, which will be the focus of this session.</p> <p>The Practical Endorsement is common to all exam boards. It is a stand-alone qualification, graded as a pass or not passed, so does not affect the A level grade, however if a student is going on to science or engineering based courses then institutions will often expect the student to have passed this.</p> <p>The student is assessed by the teachers observing the student carrying out practical work. This can include any practical activities not just the core practicals. The student is assessed against the Common Practical Assessment Criteria, which mirrors the skills outlined in Appendix 5b of the specification. Note here that the apparatus and techniques in Appendix 5c are not assessed directly, rather these are the specific skills that need to be taught.</p>
Slide 44	<p>This specification includes 16 core practicals, compared to 12 in AQA and OCR. These are not intended to be the only practical activities that the students do throughout the course. They benefit from being</p>



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	<p>exposed to as many practical activities as possible. However they do serve several specific purposes.</p> <p>Firstly, they help to develop specific knowledge and understanding of physics concepts by using practical work to apply and develop abstract ideas and models.</p> <p>Secondly, the core practicals develop investigative skills, such as devising and investigating testable questions, identifying and controlling variables, analysing, interpreting and evaluating data. Students should be encouraged to plan their own investigations, particularly towards the end of the course.</p> <p>Thirdly, the core practicals develop the practical skills involved in using specific apparatus and techniques, and working safely. Note here that the core practicals can be adapted for the apparatus available provided the aspect of Appendix 5c is covered. For example, core practical 15 requires the use of a gamma radiation source, however, if one is not available a different experiment using a radioactive source can be used instead. However, the student will still need to know that practical for the exam as it is a specification point.</p> <p>Finally, the core practicals offer coverage of the CPAC criteria. Although there are 16 core practicals, a minimum of 12 can be used for CPAC assessment provided all of Appendix 5c is covered. The extra 4 allow a bit of wriggle room and the opportunity to reassess criteria where necessary.</p>
Slide 45	<p>This is the CPAC criteria used for assessing students. To gain an overall pass the student must show competence in each of these areas. Note that there are some criteria that contain several strands, such as 5a.</p>



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	<p>This is supported by evidence. Part of the evidence is a teacher record of the student's performance whilst undertaking the practical. This would be a tracking spreadsheet, or similar, supported by observations made by the teacher.</p> <p>The rest is the student's record of doing the practical, for example, their lab book showing the data recorded whilst they are taking the readings.</p> <p>Note that the student should engage with investigative activities, so they should plan and carry out practicals, not just follow a procedure that has been provided.</p>
Slide 46	<p>As mentioned in the previous slide, the student's performance has to be evidenced and tracked. The tracking spreadsheet is free to download from the website and free to use on stand-alone machines or networks. Using the spreadsheet automatically covers the required record keeping but it isn't the only way of doing it.</p> <p>The tracking spreadsheet has been designed so that teachers can record outcomes for each criteria in three colours – red is not achieved, orange is working towards and green is achieved.</p> <p>The spreadsheet automatically collates the outcomes for each practical giving an overview by criteria or practical, which is very useful to track whole groups as well as specific students.</p> <p>There is additional space for extra practicals if you have a favourite practical you like to use, or if a student needs additional opportunities to show competence.</p> <p>The criteria being assessed for a practical can be modified. Each practical contains all criteria, but some are hidden. These can be</p>



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	<p>unhidden easily. Also notes can be added to show which strand has been assessed.</p> <p>Note that whilst there is a suggested route through CPAC, this is not the only way. Centres are encouraged to plan a route through that works for their specific situation.</p>
Slide 47	<p>There is a wealth of free support available to help you with CPAC.</p> <p>W09 the mapping document relates to the spreadsheet and suggests 3 criteria per practical. It is a suggested route and may be a good starting point, but it is not the only way. Edit them for your own use to suit your particular centre.</p> <p>The comparison to AQA/OCR is in the Delegate Booklet. AQA has 12 practicals and are related as shown, by apparatus. OCR has 12 PAG (practical activity groups) and only some are direct comparisons</p> <p>W10 CPAC Evidence is a guide for written and observed evidence related to CPAC according to which criteria are being assessed.</p> <p>There are worksheets available for each practical, and include student, teacher and technician guides. An example, W11, is in the resources. It is recommended that you phase these out in year 13 for investigative activities that require plans to be devised. Some centres adapt these for their own needs. There are also questions related to the practical, similar to the Practical Guide but focused on the practical.</p> <p>W12 Pen Portraits are 2 or 3 “must sees” for the criteria being assessed. This allows for standards to be maintained across years and staff, i.e. moderation. An example is given here. These should be written for your own circumstances, and can be used as observational evidence.</p>



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	<p>There is also a Lead Teacher Guide, and pre-recorded training which is compulsory for the Lead Teacher.</p> <p>As with written exams, the Lead Monitor writes an annual report, which should be consulted.</p> <p>Don't forget the Monitoring visit. The monitors are a rich source of information as they see a diverse range of centres and pick up on good practice which they are more than willing to pass on. Their intention is to encourage good practice and improve how a centre approaches CPAC, not just give a pass or fail.</p> <p>Remember to check the website on a regular basis as more material is added.</p>
Slide 48	<p>Now it's time for you to spend about 5 minutes looking through the CPAC resources. Please refer to Activity 6 in the Delegate Booklet.</p> <p>Please pause the recording and restart when you are ready.</p> <p>PAUSE</p>
Slide 49	<p>Part 4: Review of support</p> <p>This session is designed to take 15 minutes.</p>
Slide 50	<p>Most of what you have seen today is freely available on the subject website, but there is much more! Don't forget that this is updated as more material is produced. Here is a list of some of the support available in these sections of the website.</p> <p>PAUSE</p>
Slide 51	<p>Note that there are both free and paid for training events available.</p> <p>PAUSE</p>



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Slide 52	<p>ResultsPlus is Edexcel's free online service giving instant and detailed analysis of your students' exam and mock performance. Here you can see your students' scores for every exam question and understand how your students' performance compares with Edexcel national averages.</p> <p>Don't forget the free Access to Scripts service.</p>
Slide 53	<p>There is free online support available if you want to ask for advice.</p> <p>The physics Subject Advisor is Irine, and she can be contacted via Twitter or email. There is also a live chat available. Irine also produces e-updates which you can sign up for by completing the online form.</p> <p>There is also an Ask the Expert service for physics related queries. These are directed towards the relevant expert and the link is also on the website.</p> <p>There's a variety of subject pages and forums, including our own.</p> <p>Remember your first port of call is the subject website, which is worth bookmarking.</p>
Slide 54	<p>Finally, there are resources available to buy which are endorsed by Edexcel. These include textbooks from both Hodder and Pearson Publishing. Remember it is not necessary to buy our resources to deliver our qualifications.</p>
Slide 55	<p>Part 5: Next steps</p>
Slide 56	<p>Some suggestions are included here. You may also want to use the final page in the Delegate Booklet to scribble down some immediate thoughts to act on later.</p>



Pearson

Slide 57	Finally, for more courses see our Pearson Professional Academy here. Thank you for attending this training today and we hope it was of some use to you.
Slide 58	